NOAA Data Collection (DCS) Comparison

Parameter	System		
	Cospas-Sarsat	**Argos DCS**	**GOES DCS**
Mission	Search and rescue of persons in distress	Environmental data collection and limited other use	Environmental data collection and limited other use
Coverage	Global	Global	Western Hemisphere(1)
Timing	Near instantaneous with geostationary satellites, 45 minutes with polar orbiting satellites	30 - 45 minutes for regional data, > 3 hours for global (store and forward) data	Near instantaneous
Accuracy	Doppler - < 5 kilometers GPS - 100 meters	Doppler - < 1 kilometer GPS - 100 meters	GPS - 100 meters
Reliability	Bit Error Rate 10^{-5}. 3 bit BCH error correction (Operational since 1985)	Checksum to verify message ID. User introduced validation (Operational since 1978)	Header checked and corrected. Message has parity check. 99.999% acquisition < 1s (Operational since 1979)
Nominal Satellite Constellation	4 polar orbiting and a minimum of two geostationary	2 polar orbiting	2 geostationary
Routing	International through LUTs and MCCs (One way messaging)	United States and France(2) (One way messaging for current DCS/2)	United States(3) (Interrogation allowed)
Maximum Message Size	144 bits	256 bits	5,200 bits @ 100 bps(5)
Uplink	406.01 - 406.09 MHz	401.65 MHz	401.7 - 402.1 MHz 2034.9 MHz(4)
Downlink	1544.5 MHz	Global data - available only at selected sites. Real-time data - 1698.0 or 1707.0 MHz	1694.5 MHz 468 MHz(4)
Security	None	Some Encryption Available	Some Encryption Available

Notes:
1. Between 70 degrees North and 70 degrees South. Coverage can extend to other countries and can be world-wide if agreements are established with other States
2. Regional stations may also have access to data
3. Unless prior arrangements have been made with foreign States
4. Used with interrogation mode
5. 13,040 bits @ 300 bps on the international channels